

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-34 (Canceled)

35. (Withdrawn) A method of diagnosing a cancer in a subject, comprising:
a) measuring a level of expression of an erbB-3 gene in a sample from the subject; and
b) comparing the level of expression of the erbB-3 gene in the sample from the subject to a level of expression of the erbB-3 gene in a sample from a control subject, whereby an increase in the level of expression of the erbB-3 gene in the sample from the subject, relative to the level of expression of the erbB-3 gene in the sample from the control subject, indicates a diagnosis of cancer in the subject.

36. (Withdrawn) The method of claim 35, wherein the subject is a human subject.

37. (Withdrawn) The method of claim 35, wherein the sample is a tumor sample.

38. (Withdrawn) The method of claim 35, wherein the cancer is a breast cancer.

39. (Withdrawn) The method of claim 35, wherein measuring the level of expression of an erbB-3 gene comprises:

a) hybridizing nucleic acid in the sample from the subject with a probe that specifically hybridizes with erbB-3 nucleic acid; and

b) comparing the amount of hybridization in the sample from the subject to the amount of hybridization in the sample from the control subject, whereby an increased amount of hybridization in the sample from the subject, relative to the amount of hybridization in the sample from the control subject, indicates a diagnosis of cancer in the subject.

40. (Withdrawn) The method of claim 39, wherein the erbB-3 nucleic acid is genomic DNA.

41. (Withdrawn) The method of claim 39, wherein the erbB-3 nucleic acid is RNA.

42. (Withdrawn) The method of claim 39, wherein the erbB-3 nucleic acid is cDNA.

43. (Currently Amended) A method of classifying a cancer as being correlated with a greater amount of expression of an erbB-3 gene as compared to a control, comprising:

a) measuring the level of expression of the erbB-3 gene in a sample from a subject diagnosed with cancer; and

b) comparing the level of expression of the erbB-3 gene in the sample from the subject to the level of expression of the erbB-3 gene in a sample from a control subject, whereby a greater amount ~~an increase in the level~~ of expression of the erbB-3 gene in the sample from the subject, relative to the level of expression of the erbB-3 gene in the sample from the control subject, classifies the cancer as being correlated with a greater amount of ~~increased~~ expression of the erbB-3 gene.

44. (Previously Presented) The method of claim 43, wherein the subject is a human subject.

45. (Previously Presented) The method of claim 43, wherein the sample is a tumor sample.

46. (Previously Presented) The method of claim 43, wherein the cancer is breast cancer.

47. (Currently Amended) The method of claim 43, wherein the measurement of expression of the erbB-3 gene comprises:

a) hybridizing nucleic acid in the sample from the subject with a probe that specifically hybridizes with erbB-3 nucleic acid; and

b) comparing the amount of hybridization in the sample from the subject to the amount of hybridization in the sample from the control subject, whereby a greater amount ~~an increased amount~~ of hybridization in the sample from the subject, relative to the amount of hybridization in the sample from the control subject, classifies the cancer as being correlated a greater amount of ~~increased~~ expression of the erbB-3 gene.

48. (Previously Presented) The method of claim 47, wherein the erbB-3 nucleic acid is genomic DNA.

49. (Previously Presented) The method of claim 47, wherein the erbB-3 nucleic acid is mRNA.

50. (Previously Presented) The method of claim 47, wherein the erbB-3 nucleic acid is cDNA.

51. (Previously Presented) The method of claim 43 wherein the measurement of expression of the erbB-3 gene comprises:

a) contacting a biological sample from a subject with an antibody that binds to erbB-3 and not to erbB (EGFR) or erbB-2;

b) comparing the level of antibody bound with the amount of antibody bound in a control,
wherein an increased amount of antibody binding is indicative of overexpression of erbB-3.

52. (Previously Presented) The method of claim 51 wherein the antibody is polyclonal.

53. (Previously Presented) The method of claim 51 wherein the antibody is monoclonal.

54. (Previously Presented) The method of claim 52 wherein the antibody binds the

extracellular domain of erbB-3.

55. (Previously Presented) The method of claim 52 wherein the antibody binds the intracellular domain of erbB-3.

56. (Previously Presented) The method of claim 53 wherein the antibody binds the extracellular domain of erbB-3.

57. (Previously Presented) The method of claim 53 wherein the antibody binds the intracellular domain of erbB-3.

58. (Previously Presented) The method of any one of claims 54, 55 56, or 57 wherein the antibody is detectable.

59. (Previously Presented) The method of any one of claims 54, 55, 56, or 57 wherein the antibody is bound to a support.

60. (New) An assay for determining the level of expression of erbB-3 in a sample comprising

- a. detecting the presence of erbB-3 in a sample; and
- b. measuring the level of erbB-3 in the sample.

61. (New) The assay of claim 60, wherein the assay determines level of expression of erbB-3 protein.

62. (New) The assay of claim 60, wherein the assay determines level of expression of erbB-3 nucleic acid.

63. (New) The assay of claim 60, wherein expression of erbB-3 is detected in normal tissue.

- 64. (New) The assay of claim 60, wherein expression of erbB-3 is detected in tumor tissue.
- 65. (New) The assay of claim 62, wherein the level of expression of erbB-3 is determined by measuring levels of RNA
- 66. (New) The assay of claim 62, wherein the level of expression of erbB-3 is determined by measuring levels of DNA.
- 67. (New) The assay of claim 62, wherein an amount of erbB-3 is determined in a biological sample, comprising the steps of:
 - a. contacting the biological sample with a nucleic acid isolate consisting essentially of a nucleotide sequence that encodes erbB-3 or a portion thereof under conditions such that a nucleic acid hybrid molecule can be formed;
 - b. determining the amount of hybrid molecule present, the amount of hybrid molecule indicating the amount of erbB-3 nucleic acid in the sample.
- 68. (New) The assay of claim 67, wherein the level of expression of erbB-3 is determined by measuring levels of nucleic acid.
- 69. (New) The assay of claim 68, wherein the nucleic acid in the biological sample is RNA.
- 70. (New) The assay of claim 68, wherein the nucleic acid in the biological sample is DNA.
- 71. (New) An assay for detection of the level of expression of erbB-3 in a biological sample, comprising a) contacting the sample with an erbB-3 specific antibody; b) determining the presence of an antibody/antigen complex; wherein the presence of antibody/antigen complex indicates the expression of erbB-3 in the sample.

- 72. (New) A method of determining the level of expression of erbB-3 in a sample comprising detecting erbB-3 in a sample; wherein the presence of erbB-3 in a sample indicates expression of erbB-3.
- 73. (New) The method of claim 72, wherein the level of expression of erbB-3 is determined.
- 74. (New) The method of claim 73, wherein erbB-3 is overexpressed.
- 75. (New) The method of claim 74, wherein overexpression of erbB-3 is determined by: a) detecting the amount of erbB-3 in a sample from a subject; b) comparing the amount in the sample to the amount in an equivalent sample having normal expression, the presence of erbB-3 in a greater amount indicating overexpression of erbB-3.
- 76. (New) The method of claim 75, wherein a greater amount comprises a 2-fold or greater increase.
- 77. (New) The method of claim 75, wherein erbB-3 mRNA is detected.
- 78. (New) The method of claim 75, wherein erbB-3 protein is detected.
- 79. (New) The method of claim 73, wherein erbB-3 specific-antibodies or fragments thereof are used to detect erbB-3.